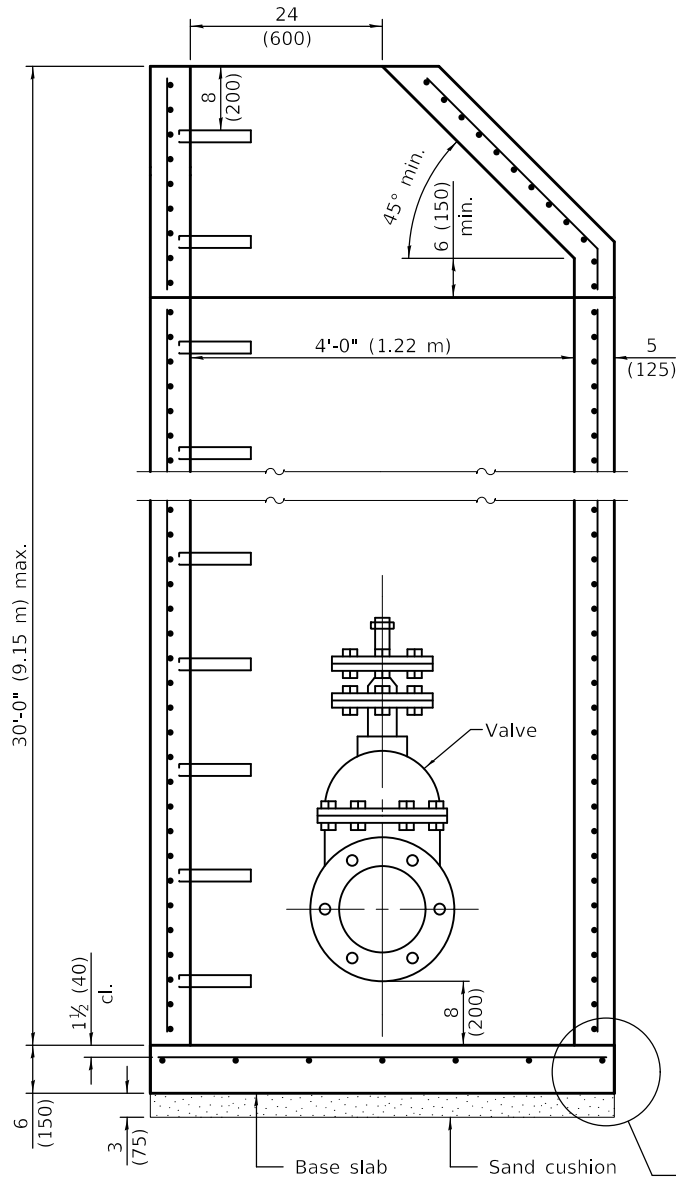
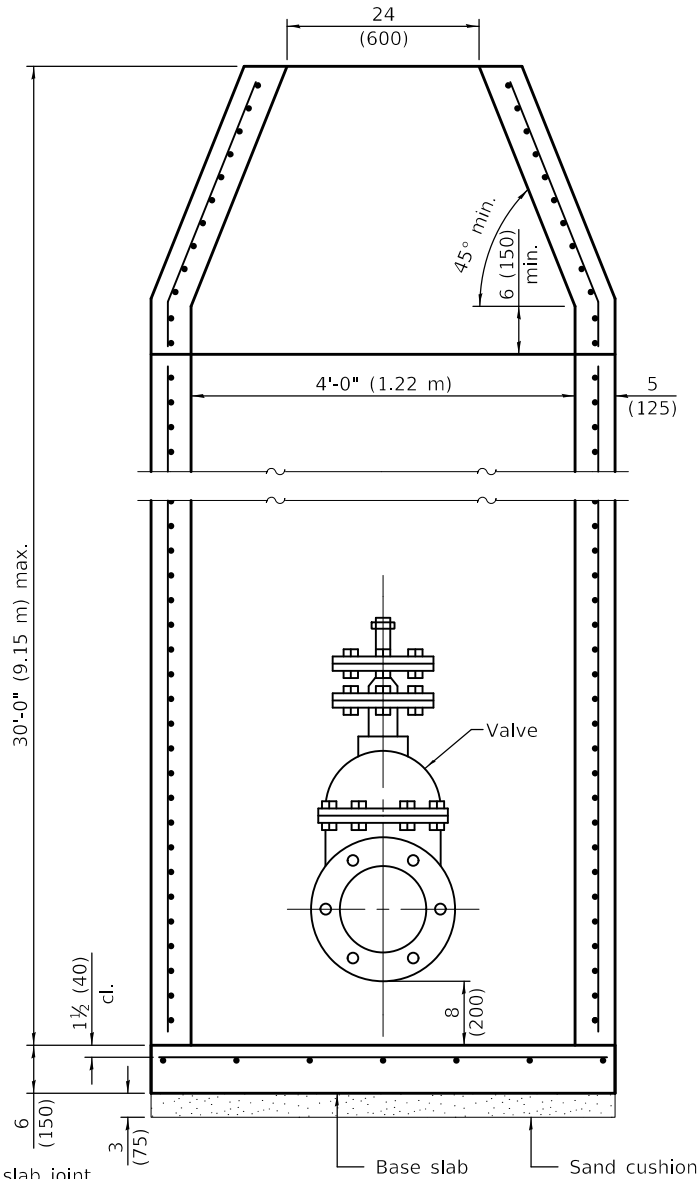


SECTION THRU VALVE VAULT
(Without conical top)

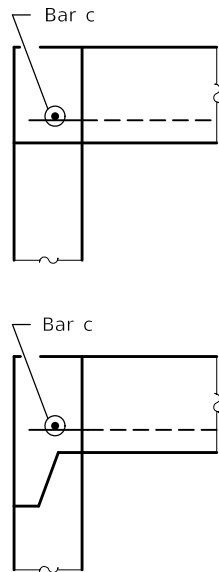


SECTION THRU VALVE VAULT
(With conical top)

See base slab joint configurations.



SECTION THRU VALVE VAULT
(With concentric conical top)



FLAT SLAB TOP JOINT CONFIGURATIONS
(Shown at access hole)

GENERAL NOTES

Use this standard for water mains ≤ 8 (200).

The manufacturer shall ensure that all precast manhole sections are additionally reinforced where required to resist damage from handling, shipping and installation stresses.

Lifting holes shall be located in the sections as per the manufacturer's recommendations, except as noted.

See Standard 602701 for details of manhole steps.

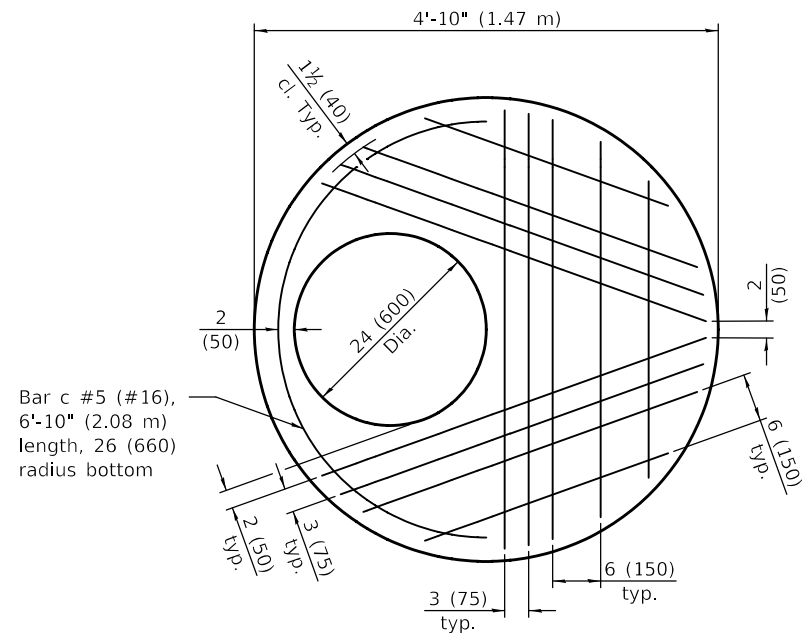
All dimensions are in inches (millimeters) unless otherwise noted.

DATE	REVISIONS
3-1-19	Moved wall reinforcement from inside face to middle.
1-1-19	Expanded / refined reinforcement options. Increased vault depths.

PRECAST VALVE VAULT TYPE A
4' (1.22 m) DIAMETER

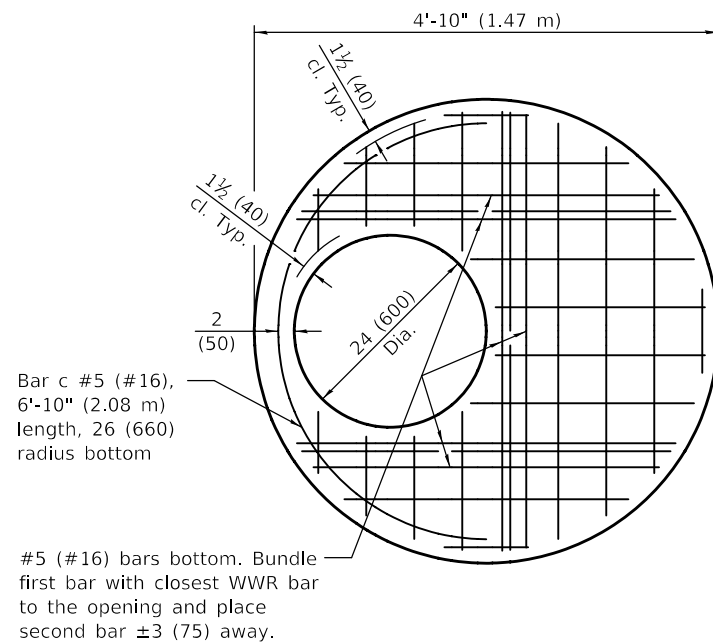
(Sheet 1 of 2)

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Bar c #5 (#16),
6'-10" (2.08 m)
length, 26 (660)
radius bottom

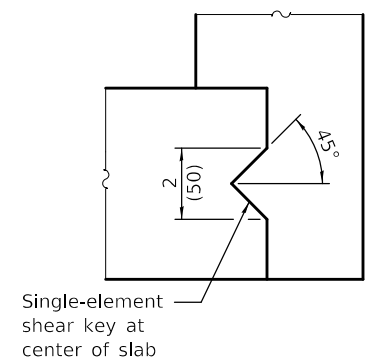
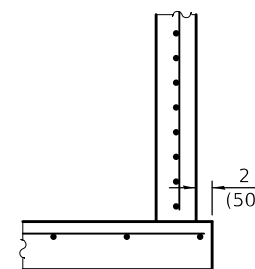
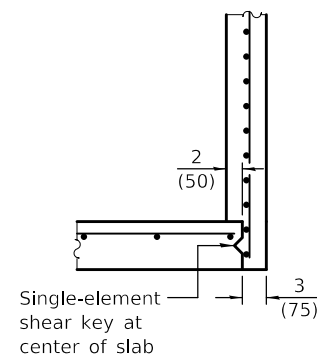
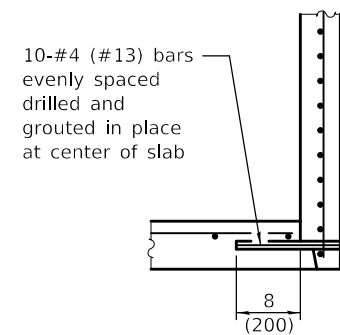
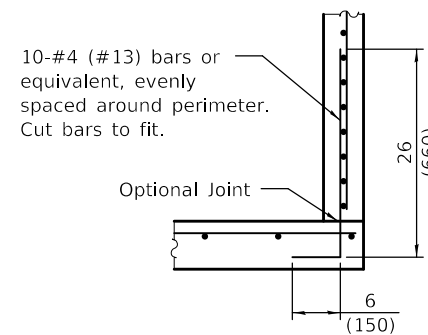
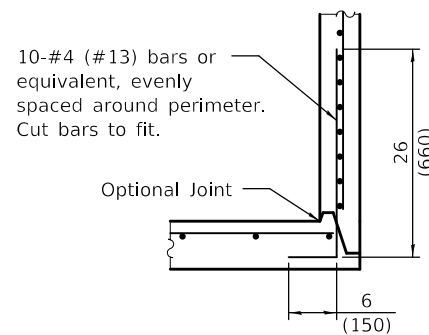
PLAN - FLAT SLAB TOP
(Showing layout of reinforcement bars and c bars)



Bar c #5 (#16),
6'-10" (2.08 m)
length, 26 (660)
radius bottom

#5 (#16) bars bottom. Bundle
first bar with closest WWR bar
to the opening and place
second bar ± 3 (75) away.

PLAN - FLAT SLAB TOP
(Showing layout of welded wire reinforcement and c bars)



Single-element
shear key at
center of slab

SHEAR KEY GEOMETRY
(Reinforcement not shown for clarity)

FLAT SLAB TOP REINFORCEMENT

Location	WWR (each direction)		Rebar		
	A _s (min.)	Spacing (max.)	A _s (min.)	Spacing (max.)	Bar Size
Bottom Mat	* 0.62 sq. in./ft. (1312 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#5 (#16)

* Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Orientation	WWR or Rebar	
	A _s (min.)	Spacing (max.)
Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)

BASE SLAB REINFORCEMENT

Location	Total Height	WWR or Rebar (each direction)	
		A _s (min.)	Spacing (max.)
Top Mat	≤ 20 ft. (6.10 m)	0.24 sq. in./ft. (508 sq. mm/m)	10 (250)
	> 20 ft. (6.10 m)	0.24 sq. in./ft. (508 sq. mm/m)	10 (250)

BASE SLAB JOINT CONFIGURATIONS

PRECAST VALVE VAULT TYPE A 4' (1.22 m) DIAMETER

(Sheet 2 of 2)

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